

SPLIT-1

Work Order ID 57850 - 1



April 19, 2010 11:10:41 AM

Page 1

Item ID: D2244-116

Accept



Setup Start



Revision ID:

Stop



Item Name: Step Extrusion

Start Date: 4/19/10

Start Qty: 86.00



Cust Item ID:

Required Date: 5/05/10

Req'd Qty: 86.00



Customer:

Reference:

Approvals:

Process Plan: C2

Date: 10/4/19

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run HoursDraw
NumberDraw
Rev.Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

Draw Nbr

Revision Nbr

D2244

Rev D1

100

0.00



Purchasing

PURCHASING

Memo

0.00

Purchasing

Issue P/O: 11694 ☐ a) Extrude as per Dwg D2244 ☐ b) Material:
6061-T6 (QQ-A-200/8) ☐ c) Minimum yield tensile strength = 35 ksi ☐ d)
Minimum ultimate tensile strength = 38 ksi ☐ e) Minimum elongation = 8% ☐ f)
Order at 116" long ☐ g) Caradon Indalex Tool # M



C2 10/4/19 86

110

0.00



Packaging

Receive & Inspect for Damage & Mat'l Certs

Memo

0.00

Packaging

Ensure certification are attached

C2 10/5/18 86

120

0.00



QC

QC6- Inspect dimensions to drawing

Memo

0.00

Quality Control

Check Pull test per Dwg D2244 for compliance page attached. Check hardness
with Webster tester

S1010510



W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 57850

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Item ID: D2244-116

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Customer:

Reference:

Run Start



Approvals:

Process Plan:

Date:

Tooling:

Date:

Stop



QC:

Date:

SPC (Y/N):

Date:

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run HoursDraw
NumberDraw
Rev.Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

130

Identify as per dwg & Stock Location: WA

0.00



Packaging

Memo

0.00

Packaging

MRF 10-5-18

140

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

10/05/18
MRF
10-5-18

POSITIVE RECALL

EFFECTIVE

100517

AUTH

RELEASED

u

DATE

10-05-18

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

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Page 1

Work Order ID: 57850



Parent Item: D2244-116



Parent Item Name: Step Extrusion



Start Date: 4/19/10

Required Date: 5/05/10

Comments: IPP: A ☐ 24.03.04 ☐ New Issue ☐ KJ ☐

Start Qty: 86.00

Required Qty: 86.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D2244-116P  Step Extrusion		Purchased				110	Each	0.0000	86.0000 			

C2 10/5/18

6

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

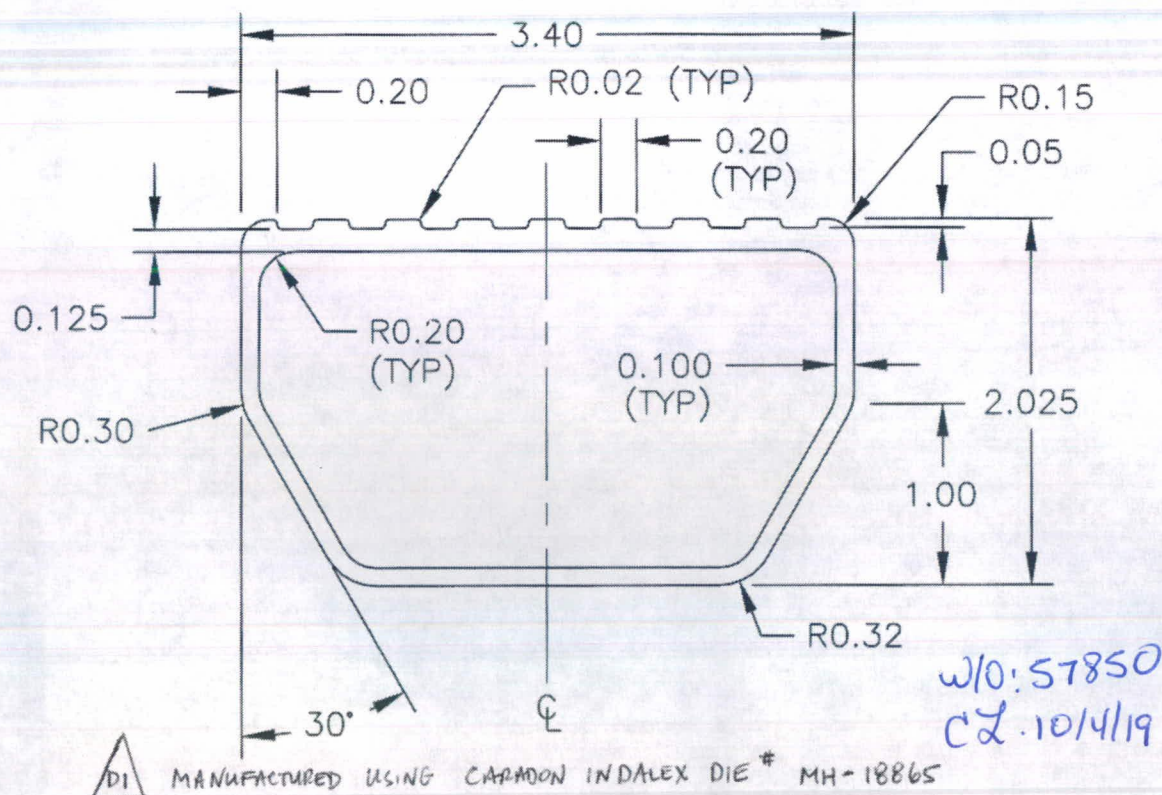
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



DESIGN	DRAWN BY	DART AEROSPACE LTD	
BW	<i>CP</i>	HAWKESBURY, ONTARIO, CANADA	
CHECKED	APPROVED	DRAWING NO.	REV. D
<i>KE</i>	<i>MH</i>	D2244	SHEET 1 OF 1
DATE		TITLE	SCALE
98.11.18		STEP EXTRUSION	1:1
A	94.07.05	NEW ISSUE	
B	94.07.11	REDESIGNED	
C	94.08.08	REDESIGNED	
D	98.11.18	REMOVED 6005A MATERIAL INCORPORATED DEO 9081	
D1	01.04.17	ADDED DIE #	<i># CP</i>

RELEASED
18.11.25 KE



PART NUMBER D2244-XX.X
XX.X IS CUT LENGTH IN INCHES

MATERIAL: 6061-T6 (QQ-A-200/8)

A SAMPLE FROM EACH BATCH WILL BE PULL TESTED TO ASTM STANDARD B221 BY AN APPROVED TESTING FACILITY TO ENSURE THAT THE BATCH MEETS THE MINIMUM MECHANICAL PROPERTIES STATED BELOW:

MINIMUM TENSILE YIELD STRENGTH = 35 ksi
MINIMUM ULTIMATE TENSILE STRENGTH = 38 ksi
MINIMUM ELONGATION = 8%

TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED

PAR / BY:

325 rue Avro
 Pointe-Claire, QC, Canada, H9R 5W3
 Téléphone (514) 697-5120
 Fac-simile (514) 694-8310

sapa:

Rapport des propriétés mécaniques Mechanical Properties Test Report

Client / Customer : **DART AEROSPACE LTD**
 Adresse / Address : **270 ABERDEEN STREET
 HAWKESBURY ONT,
 K6A 1K7**

commande Sapa / Sapa order # : **50399**

bon de commande / Purchase order # : **11694**

de matrice / Die # : **MH 18865**

Description : **Step Extrusion**

Alliage & trempage / Alloy & temper : **6061 T6**

Customer Part # : **D2244**

Contrôle / Control # : **19642-1**

Coulée / Cast # : **48341**

	Min.requis Min.required	Résultat actuel Actual results
Tension ultime Ultimate stress (psi)	38 000	43471
Contrainte élastique Yield stress (psi)	35 000	40290
% élongation dans 2" % elongation in 2"	8	12
Dureté Rockwell E (hre) Rockwell E Hardness (hre)	88 @ 100	95

Composition chimique typique / Typical chemical composition :

	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti
6063	0,20 - 0,60	0,35 Max	0,10 Max	0,10 Max	0,45 - 0,90	0,10 Max	0,10 Max	0,10 Max
6005	0,60 - 0,90	0,35 Max	0,10 Max	0,10 Max	0,40 - 0,60	0,10 Max	0,10 Max	0,10 Max
6005A	0,68 - 0,72	0,15 - 0,27	0,08 - 0,12	0,20 - 0,24	0,48 - 0,52	0,03 Max	0,05 Max	0,03 Max
6061	0,40 - 0,80	0,70 Max	0,15 - 0,40	0,15 Max	0,80 - 1,20	0,04 - 0,35	0,25 Max	0,15 Max
6351	0,7 - 1,3	0,5 Max	0,10 Max	0,40 - 0,80	0,40 - 0,80	—	0,20 Max	0,20 Max

Nous certifions que le matériel fourni rencontre les exigences chimiques telles qu'annoncées par la norme ASTM B-221 excepté pour la section 8.2 (nombre de spécimen) et AMS QQA 200/8 excepté pour la section 4.2.3.1 (nombre de spécimen) qui sont déterminés par les exigences du client.

We hereby certify that the material supplied meets the chemical properties as published by the ASTM B-221 except for section 8.2 (number of specimen) and AMS QQA 200/8 except for section 4.2.3.1 (number of specimen) which is determined by customer requirement.

Sincèrement vôtre,
 Yours truly,

date : **2010-05-18**



Bruno Morency
 Superviseur qualité
 Quality supervisor

